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(2) The owner or operator is monitoring emissions from the unit with another certified monitoring system or an excepted methodology approved by the Administrator for use at that unit that provides emissions data for the same pollutant or parameter as the retired or discontinued monitoring system; or

(3) The designated representative submits notification of the date of recertification testing of a replacement monitoring system in accordance with §§ 75.20 and 75.61, and the owner or operator recertifies thereafter a replacement monitoring system in accordance with § 75.20.

[58 FR 3701, Jan. 11, 1993, as amended at 58 FR 40747, July 30, 1993; 60 FR 26517, May 17, 1995; 64 FR 28589, May 26, 1999]

§ 75.6 Incorporation by reference.

The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they existed on the date of approval, and a notice of any change in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding address noted below and are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW, Suite 700, Washington, DC, at the Public Information Reference Unit of the U.S. EPA, 401 M Street, SW, Washington, DC and at the Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

(a) The following materials are available for purchase from the following addresses: American Society for Testing and Material (ASTM), 1916 Race Street, Philadelphia, Pennsylvania 19103; and the University Microfilms International 300 North Zeeb Road, Ann Arbor, Michigan 48106.

(1) ASTM D129–91, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), for appendices A and D of this part.

(2) ASTM D240–87 (Reapproved 1991), Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels

by Bomb Calorimeter, for appendices A, D and F of this part.

(3) ASTM D287–82 (Reapproved 1987), Standard Test Method for API Gravity of Crude Petroleum and Petroleum Products (Hydrometer Method), for appendix D of this part.

(4) ASTM D388–92, Standard Classification of Coals by Rank, incorporation by reference for appendix F of this part.

(5) ASTM D941–88, Standard Test Method for Density and Relative Density (Specific Gravity) of Liquids by Lipkin Bicapillary Pycnometer, for appendix D of this part.

(6) ASTM D1072–90, Standard Test Method for Total Sulfur in Fuel Gases, for appendix D of this part.

(7) ASTM D1217–91, Standard Test Method for Density and Relative Density (Specific Gravity) of Liquids by Bingham Pycnometer, for appendix D of this part.

(8) ASTM D1250–80 (Reapproved 1990), Standard Guide for Petroleum Measurement Tables, for appendix D of this part.

(9) ASTM D1298–85 (Reapproved 1990), Standard Practice for Density, Relative Density (Specific Gravity) or API Gravity of Crude Petroleum and Liquid Petroleum Products by Hydrometer Method, for appendix D of this part.

(10) ASTM D1480–91, Standard Test Method for Density and Relative Density (Specific Gravity) of Viscous Materials by Bingham Pycnometer, for appendix D of this part.

(11) ASTM D1481–91, Standard Test Method for Density and Relative Density (Specific Gravity) of Viscous Materials by Lipkin Bicapillary Pycnometer, for appendix D of this part.

(12) ASTM D1552–90, Standard Test Method for Sulfur in Petroleum Products (High Temperature Method), for appendices A and D of the part.

(13) ASTM D1826–88, Standard Test Method for Calorific (Heating) Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, for appendices D and F to this part.

(14) ASTM D1945–91, Standard Test Method for Analysis of Natural Gas by Gas Chromatography, for appendices F and G of this part.

(15) ASTM D1946–90, Standard Practice for Analysis of Reformed Gas by

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Gas Chromatography, for appendices F and G of this part.

(16) ASTM D1989-92, Standard Test Method for Gross Calorific Value of Coal and Coke by Microprocessor Controlled Isoperibol Calorimeters, for appendix F of this part.

(17) ASTM D2013-86, Standard Method of Preparing Coal Samples for Analysis, for § 75.15 and appendix F of this part.

(18) ASTM D2015-91, Standard Test Method for Gross Calorific Value of Coal and Coke by the Adiabatic Bomb Calorimeter, for § 75.15 and appendices A, D and F of this part.

(19) ASTM D2234-89, Standard Test Methods for Collection of a Gross Sample of Coal, for § 75.15 and appendix F of this part.

(20) ASTM D2382-88, Standard Test Method for Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), for appendices D and F of this part.

(21) ASTM D2502-87, Standard Test Method for Estimation of Molecular Weight (Relative Molecular Mass) of Petroleum Oils from Viscosity Measurements, for appendix G of this part.

(22) ASTM D2503-82 (Reapproved 1987), Standard Test Method for Molecular Weight (Relative Molecular Mass) of Hydrocarbons by Thermoelectric Measurement of Vapor Pressure, for appendix G of this part.

(23) ASTM D2622-92, Standard Test Method for Sulfur in Petroleum Products by X-Ray Spectrometry, for appendices A and D of this part.

(24) ASTM D3174-89, Standard Test Method for Ash in the Analysis Sample of Coal and Coke From Coal, for appendix G of this part.

(25) ASTM D3176-89, Standard Practice for Ultimate Analysis of Coal and Coke, for appendices A and F of this part.

(26) ASTM D3177-89, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke, for § 75.15 and appendix A of this part.

(27) ASTM D3178-89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, for appendix G of this part.

(28) ASTM D3238-90, Standard Test Method for Calculation of Carbon Distribution and Structural Group Anal-

ysis of Petroleum Oils by the n-d-M Method, for appendix G of this part.

(29) ASTM D3246-81 (Reapproved 1987), Standard Test Method for Sulfur in Petroleum Gas By Oxidative Microcoulometry, for appendix D of this part.

(30) ASTM D3286-91a, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, for appendix F of this part.

(31) ASTM D3588-91, Standard Practice for Calculating Heat Value, Compressibility Factor, and Relative Density (Specific Gravity) of Gaseous Fuels, for appendices D and F to this part.

(32) ASTM D4052-91, Standard Test Method for Density and Relative Density of Liquids by Digital Density Meter, for appendix D of this part.

(33) ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, for appendix D of this part.

(34) ASTM D4177-82 (Reapproved 1990), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, for appendix D of this part.

(35) ASTM D4239-85, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, for § 75.15 and appendix A of this part.

(36) ASTM D4294-90, Standard Test Method for Sulfur in Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectroscopy, for appendices A and D of this part.

(37) ASTM D4468-85 (Reapproved 1989), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, for appendix D of this part.

(38) ASTM D4891-89, Standard Test Method for Heating Value of Gases in Natural Gas Range by Stoichiometric Combustion, for appendices D and F to this part.

(39) ASTM D5291-92, Standard Test Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in Petroleum Products and Lubricants, for appendices F and G to this part.

(40) ASTM D5373-93, "Standard Methods for Instrumental Determination of Carbon, Hydrogen, and Nitrogen in

Laboratory Samples of Coal and Coke,” for appendix G to this part.

(41) ASTM D5504-94, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, for appendix D of this part.

(b) The following materials are available for purchase from the American Society of Mechanical Engineers (ASME), 22 Law Drive, Box 2350, Fairfield, NJ 07007-2350.

(1) ASME MFC-3M-1989 with September 1990 Errata, Measurement of Fluid Flow in Pipes Using Orifice, Nozzle, and Venturi, for appendix D of this part.

(2) ASME MFC-4M-1986 (Reaffirmed 1990), Measurement of Gas Flow by Turbine Meters, for appendix D of this part.

(3) ASME-MFC-5M-1985, Measurement of Liquid Flow in Closed Conduits Using Transit-Time Ultrasonic Flowmeters, for appendix D of this part.

(4) ASME MFC-6M-1987 with June 1987 Errata, Measurement of Fluid Flow in Pipes Using Vortex Flow Meters, for appendix D of this part.

(5) ASME MFC-7M-1987 (Reaffirmed 1992), Measurement of Gas Flow by Means of Critical Flow Venturi Nozzles, for appendix D of this part.

(6) ASME MFC-9M-1988 with December 1989 Errata, Measurement of Liquid Flow in Closed Conduits by Weighing Method, for appendix D of this part.

(c) The following materials are available for purchase from the American National Standards Institute (ANSI), 11 W. 42nd Street, New York NY 10036: ISO 8316: 1987(E) Measurement of Liquid Flow in Closed Conduits-Method by Collection of the Liquid in a Volumetric Tank, for appendices D and E of this part.

(d) The following materials are available for purchase from the following address: Gas Processors Association (GPA), 6526 East 60th Street, Tulsa, Oklahoma 74145:

(1) GPA Standard 2172-86, Calculation of Gross Heating Value, Relative Density and Compressibility Factor for Natural Gas Mixtures from Compositional Analysis, for appendices D, E, and F of this part.

(2) GPA Standard 2261-90, Analysis for Natural Gas and Similar Gaseous Mixtures by Gas Chromatography, for appendices D, F, and G of this part.

(e) The following materials are available for purchase from the following address: American Gas Association, 1515 Wilson Boulevard, Arlington VA 22209:

(1) American Gas Association Report No. 3: Orifice Metering of Natural Gas and Other Related Hydrocarbon Fluids, Part 1: General Equations and Uncertainty Guidelines (October 1990 Edition), Part 2: Specification and Installation Requirements (February 1991 Edition) and Part 3: Natural Gas Applications (August 1992 Edition), for appendices D and E of this part.

(2) American Gas Association Transmission Measurement Committee Report No. 7: Measurement of Gas by Turbine Meters (Second Revision, April, 1996), for appendix D to this part.

(f) The following materials are available for purchase from the following address: American Petroleum Institute, Publications Department, 1220 L Street NW, Washington, DC 20005-4070.

(1) American Petroleum Institute (API) Petroleum Measurement Standards, Chapter 3, Tank Gauging: Section 1A, Standard Practice for the Manual Gauging of Petroleum and Petroleum Products, December 1994; Section 1B, Standard Practice for Level Measurement of Liquid Hydrocarbons in Stationary Tanks by Automatic Tank Gauging, April 1992 (reaffirmed January 1997); Section 2, Standard Practice for Gauging Petroleum and Petroleum Products in Tank Cars, September 1995; Section 3, Standard Practice for Level Measurement of Liquid Hydrocarbons in Stationary Pressurized Storage Tanks by Automatic Tank Gauging, June 1996; Section 4, Standard Practice for Level Measurement of Liquid Hydrocarbons on Marine Vessels by Automatic Tank Gauging, April 1995; and Section 5, Standard Practice for Level Measurement of Light Hydrocarbon Liquids Onboard Marine Vessels by Automatic Tank Gauging, March 1997; for § 75.19.

(2) Shop Testing of Automatic Liquid Level Gages, Bulletin 2509 B, December 1961 (Reaffirmed August 1987, October 1992), for § 75.19.

(3) American Petroleum Institute (API) Section 2, "Conventional Pipe Provers," Section 3, "Small Volume Provers," and Section 5, "Master-Meter Provers," from Chapter 4 of the Manual of Petroleum Measurement Standards, October 1988 (Reaffirmed 1993), for appendix D to this part.

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§ 75.7–75.8 [Reserved]

Subpart B—Monitoring Provisions

§ 75.10 General operating requirements.

(a) *Primary Measurement Requirement.* The owner or operator shall measure opacity, and all SO₂, NO_x, and CO₂ emissions for each affected unit as follows:

(1) The owner or operator shall install, certify, operate, and maintain, in accordance with all the requirements of this part, a SO₂ continuous emission monitoring system and a flow monitoring system with the automated data acquisition and handling system for measuring and recording SO₂ concentration (in ppm), volumetric gas flow (in scfh), and SO₂ mass emissions (in lb/hr) discharged to the atmosphere, except as provided in §§ 75.11 and 75.16 and subpart E of this part;

(2) The owner or operator shall install, certify, operate, and maintain, in accordance with all the requirements of this part, a NO_x continuous emission monitoring system (consisting of a NO_x pollutant concentration monitor and an O₂ or CO₂ diluent gas monitor) with the automated data acquisition and handling system for measuring and recording NO_x concentration (in ppm), O₂ or CO₂ concentration (in percent O₂ or CO₂) and NO_x emission rate (in lb/mmBtu) discharged to the atmosphere, except as provided in §§ 75.12 and 75.17 and subpart E of this part. The owner or operator shall account for total NO_x emissions, both NO and NO₂, either by monitoring for both NO and NO₂ or by monitoring for NO only and adjusting the emissions data to account for NO₂;

(3) The owner or operator shall determine CO₂ emissions by using one of the

following options, except as provided in § 75.13 and subpart E of this part:

(i) The owner or operator shall install, certify, operate, and maintain, in accordance with all the requirements of this part, a CO₂ continuous emission monitoring system and a flow monitoring system with the automated data acquisition and handling system for measuring and recording CO₂ concentration (in ppm or percent), volumetric gas flow (in scfh), and CO₂ mass emissions (in tons/hr) discharged to the atmosphere;

(ii) The owner or operator shall determine CO₂ emissions based on the measured carbon content of the fuel and the procedures in appendix G of this part to estimate CO₂ emissions (in ton/day) discharged to the atmosphere; or

(iii) The owner or operator shall install, certify, operate, and maintain, in accordance with all the requirements of this part, a flow monitoring system and a CO₂ continuous emission monitoring system using an O₂ concentration monitor in order to determine CO₂ emissions using the procedures in appendix F of this part with the automated data acquisition and handling system for measuring and recording O₂ concentration (in percent), CO₂ concentration (in percent), volumetric gas flow (in scfh), and CO₂ mass emissions (in tons/hr) discharged to the atmosphere; and

(4) The owner or operator shall install, certify, operate, and maintain, in accordance with all the requirements in this part, a continuous opacity monitoring system with the automated data acquisition and handling system for measuring and recording the opacity of emissions (in percent opacity) discharged to the atmosphere, except as provided in §§ 75.14 and 75.18.

(b) *Primary Equipment Performance Requirements.* The owner or operator shall ensure that each continuous emission monitoring system required by this part meets the equipment, installation, and performance specifications in appendix A to this part; and is maintained according to the quality assurance and quality control procedures in appendix B to this part; and shall record SO₂ and NO_x emissions in the